

Guidelines for the Investigation of Potential Poxvirus and other Febrile Vesicular Rash Illnesses

I. General

Public health laboratories have developed the capacity to investigate cases of Poxvirus and other febrile vesicular rash illnesses. Those agents that need the most consideration in the differential diagnosis of poxvirus and look alike illnesses are chickenpox, monkey pox, smallpox and post smallpox vaccination illness. Local laboratories SHOULD NOT attempt to investigate the cases of suspected smallpox infection. This virus is a bio-safety level 4 (BSL-4) agent. In addition, validated laboratory diagnosis of *Variola major* and *V. minor* (agents for smallpox) is not available outside the public health laboratories. Furthermore, state laboratories are working closely with the Center for Disease Control (CDC), which has the capability to evaluate diseases caused by bio-engineered agents.

In the United States, suspected cases of smallpox must immediately be reported to the state or territorial health department. These cases must be immediately reviewed with state and local health officials to collate all pertinent information, initiate the emergency response protocol, and ensure that appropriate specimens are collected. This document is created to distribute knowledge for the guidelines on collection and shipment of related specimens in a suspected case of poxvirus, investigation of post-vaccinia vaccination adverse affects, or other febrile vesicular rash illnesses. You are required to take the following actions in such situations:

- Immediately contact the Michigan Department of Community Health (MDCH) laboratory director at 517-335-8063 and the MDCH epidemiologist/health officer at 517-335-8024 during normal business hours. After hours call 517-335-9030.
- Be prepared to provide pertinent patient information and emergency 24/7 contact information of the laboratory, attending, and consulting, or ED physicians.
- Pursuant to a potential criminal investigation, original specimens should be biologically contained (refrigeration may be necessary) and appropriately secured.

After specimens are collected and submitted to MDCH:

- *Varicella zoster* virus (VZV) testing will be done initially on specimens submitted to the MDCH laboratory. If VZV testing results are negative and a consultation with the submitting physician indicates the patient's condition is consistent with poxvirus illness, further related testing will be initiated at the MDCH laboratory.
- When poxvirus testing is negative and there is a strong suspicion for a case of smallpox, MDCH will notify CDC for smallpox testing.
- Administration of smallpox vaccination, and possibly Vaccinia Immune Globulin (VIG) should be determined in coordination with MDCH. In the event of a large outbreak of confirmed smallpox, other laboratories with smallpox diagnostic capabilities may be used for diagnostic surge capacity. These laboratories will be designated by MDCH and instructions for sending specimens to these laboratories will be given at the time of their designation.

II. Safety

- A. Only recently immunized (successfully vaccinated against smallpox within the past three years) personnel wearing appropriate barrier protection (gloves, gown, and shoe covers) should be involved in specimen collection for suspected cases of smallpox. Respiratory protection is not needed for personnel with recent, successful vaccination. Masks and eyewear or face shields should be used if

splashing is anticipated. If unvaccinated personnel must be utilized to collect specimens, only those without contraindications to vaccination should be utilized as they would require immediate vaccination if the diagnosis of smallpox is confirmed. Fit-tested N-95 masks should be worn by unvaccinated individuals caring for suspected patients.

- B. All procedures for processing, packing, and shipping potentially infectious material should be performed in laboratories utilizing BSL-2 or, if available, BSL-3 practices.
- C. While working with specimens, laboratory personnel should avoid any activity that brings hands or fingers in contact with mucosal surfaces, such as eating, drinking, smoking, or applying make-up.
- D. After removing gloves, personnel should thoroughly wash their hands with soap containing Lysol or soaps such as Hibiclens before leaving the laboratory. Areas of the skin known or suspected to have come in contact with the specimen should be washed with soap and should be decontaminated with 0.5% sodium hypochlorite (bleach) solution with at least a 1-minute contact time.

III. Specimen Collection Supply List

The following materials will be required for specimen collection from each patient:

Personal Protective Equipment (Not provided by MDCH)

- Disposable protective latex or vinyl gloves (sterile gloves not required)
- Disposable protective gowns
- N-95 masks or higher rated, properly fitted HEPA – filtered respirators
- Protective eyewear
- Shoe covers

MDCH Unit # 20 Vesicular Rash Unit

- Ten sterile dry Dacron swabs
- Two liquid Viral Transport Medium (VTM)
- One 10.0 ml ampoule of saline
- Ten sterile screw-capped 2 ml vials
- One 6 ml plastic lavender - topped tube, with EDTA
- One 10 ml plastic marble - topped tube, serum separator
- MDCH Test requisition
- UN 6.2 infectious substance shipping container
- Ice substitute

Equipment/Materials Needed but NOT Provided in MDCH Collection Unit

- Biohazard plastic disposable bags
- One disposable scalpel with No. 10 blade
- Several sterile 26 gauge needles
- Two 1.0 cc sterile syringe with 25 – 27 gauge needle
- 5 or 10 cc syringe with 18 or 20 gauge needle
- One 3.5 or 4 mm punch biopsy kit
- One vacutainer holder
- Two vacutainer needles (20 x 1 ½ in.)
- Parafilm
- Formalin
- 10% Bleach Solution

IV. Specimen Collection Procedure

Information required on MDCH Test Requisition Form:

- Patient Name
- Date of Collection
- Source of Specimen (Vesicle, Pustule or Scab)
- Social Security Number or Date of Birth of Patient
- Name and Phone number of Agency Submitter and Physician(s)
- Hospital identification number, if the patient is hospitalized.
- Information on patient condition and development and description of rash.

Put on the protective equipment described above in Safety (Section II) for the procedures described below. After specimen collection is complete, all personal protective materials and sample collection materials must be placed in biohazard bags or sharps containers (where appropriate) and autoclaved or incinerated prior to disposal. Refer to decontamination guidelines VII below.

If possible, submit all 6 types of clinical specimens (A-F) listed below. If only scabs are present, collect B, D, E, and F - do not attempt to collect A or C below.

Do not use glass vials if possible. Use plastic vials or bottles as the primary container for ALL specimens.

A. Vesicle aspirates in VTM and Saline

1. Collect vesicle fluid by first gently washing the intact vesicle with sterile saline. Using one of the viral transport medium tubes supplied in collection unit # 20, rinse a 1.0 ml syringe (with a 26-gauge needle attached) with the sterile viral transport medium allowing 0.05 ml to remain in the barrel of the syringe. (This will prevent desiccation and clotting of the specimen.)
2. Aspirate the vesicle fluid. **It is advantageous to collect fluid from several vesicles.**
3. Slowly transfer the fluid back into the viral transport medium tube, **taking care not to create aerosols.**
4. Discard syringe/needle in 10% bleach solution.
5. Cap securely and apply parafilm to the cap.
6. Label the vial with patient identification and source (aspirate).
7. Refrigerate the specimen at 4 degrees C. Within 24 hours of collection, package and ship on ice substitute at 4 degrees C as described in VI - A.
8. Repeat steps 1-3 with fluid from the PBS vial and put the material in the screw capped plastic tube supplied with the kit.
9. Aspirate 0.3 ml saline from the pink plastic vial into the second 1 ml syringe with a 26-gauge needle. Aspirate fluid from 2 to 5 vesicles using the same needle/syringe. Transfer fluid into a sterile screw capped specimen tube, taking care not to create an aerosol. Remove an additional 0.3 ml saline to rinse the syringe and transfer fluid into the same sterile screw capped specimen tube.

B. Vesicle Roof or Scab

1. Using a scalpel or a sterile 26-gauge needle, open and remove the roof (top) of the vesicle or pustule. (This specimen can be collected from the same vesicle aspirated in A above.)
2. Collect the roof from at least four vesicles and place two roofs of the vesicles into each of two sterile screw – capped vials.
3. **If scabs are present**, use a 26-gauge needle to pick/pry off as many scabs as possible (at least four).
4. Place the scabs into the sterile screw-capped vials, 2 scabs each.
5. Discard needle/scalpel in 10% bleach solution.
6. Do not add liquid to the vials.
7. Cap securely and apply parafilm to the caps.
8. Label the vials with patient identification and source (roof or scab).
9. Store the specimens at ambient temperature or at 4 degrees C. Within 24 hours of collection, package and ship at ambient temperature or on ice substitute at 4 degrees C as described in VI-A.

C. Lesion Swab

1. Using a sterile Dacron swab, scrub the base of the lesion vigorously enough to ensure that cells from the lesion are collected. **Avoid getting blood into the specimen** as it can interfere with the test reagents and generate a false negative test result. (This specimen can be collected from the vesicle used for A and B above.)
2. Agitate the swab vigorously in the liquid viral transport medium (included in MDCH Unit #20) then express the excess fluids from the swab on the interior walls of the tube. **Caution must be used to prevent creation of an aerosol**
3. Remove and discard swab as biohazardous waste.
4. If there is a single lesion to be tested, place one swab in the viral transport medium (VTM). If more than one lesion is present, collect at least one swab and place in viral transport medium and collect up to five additional swabs and place the swabs into the dry sterile screw-capped vials. **Do not add liquid to these vials.**
5. Cap securely and apply parafilm to the caps.
6. Label the vials with patient identification and source (lesion swab).
7. Store the VTM at 4 degrees C. Within 24 hours of collection, package and ship on ice substitute at 4 degrees C as described in VI - A.
8. Store the screw-capped vials at ambient temperature or at 4 degrees C. Within 24 hours of collection, package and ship at ambient temperature or on ice substitute at 4 degrees C as described in VI- A.

D. Biopsy Specimen

1. Using a scalpel or a sterile 26-gauge needle, open and remove the roof (top) of an intact vesicle or pustule. Using a 3.5 mm or 4 mm punch biopsy kit collect biopsies from two separate vesicles while using aseptic technique.
2. Place one biopsy in formalin.
3. Place one biopsy in a sterile screw-capped vial. **Do not add fluid to this vial.**
4. Discard scalpel/needle/syringe in 10% bleach solution.
5. Cap securely and apply parafilm to the caps.
6. Label the vials with patient identification and source (biopsy).
7. Store formalin fixed specimen at ambient temperature. Store non-formalin fixed specimen at 4 degrees C. Within 24 hours of collection, package and ship on ice substitute at 4 degrees C as described in VI - A.

E. Blood

1. Draw 10 cc of blood into a plastic marble-topped serum separator tube. Do not spin or separate the blood.
2. Draw 5 cc of blood into a plastic purple-topped EDTA tube. Gently shake the tube containing the blood to mix the tube contents and prevent clotting of the blood.
3. Discard needle/syringe in 10% bleach solution.
4. Apply parafilm to the caps.
5. Label the tubes as described below.
6. Store specimens at 4 degrees C. Within 24 hours of collection, package and ship on ice substitute at 4 degrees C as described in VI - A.

F. Throat Swab

1. Swab or brush the posterior tonsillar tissue with a sterile Dacron swab.
2. Place the swab into a sterile screw-capped vial.
3. Break off the end of the applicator and discard into biohazardous waste; use precautions so that **aerosols are not created**.
4. Do not add liquid to the vial.
5. Cap securely and apply parafilm to the cap.
6. Label the vial with patient identification and source (throat).
7. Store the screw-capped vial at ambient temperature or at 4 degrees C. Within 24 hours of collection, package and ship at ambient temperature or on ice substitute at 4 degrees C as described in VI- A.

A. Autopsy Specimens *

1. Tissue specimens for virus isolation should be collected from multiple organs, including portions of skin containing lesions, liver, spleen, lung, lymph nodes, and/or kidney and placed in dry, sterile screw-capped containers. Specimens must be frozen at -20 degrees C and **shipped on dry ice**.
2. Formalin – fixed tissue is suitable for hisopathology, immunohistochemistry and PCR but must NOT be frozen and must be packaged separately from the frozen tissue specimens for virus isolation. All major organs (liver, spleen, skin, lung, lymph nodes, and/or kidney) should be adequately sampled, placed into screw-capped formalin containers and submitted for evaluation.
3. After specimen collection, all non-reusable specimen collection and barrier protection materials must be placed into a biohazard bag and autoclaved prior to disposal. All reusable equipment must be autoclaved or disinfected according to standard laboratory procedures before reuse.
4. Refer to decontamination Guidelines in Section VII below.
5. Cap securely and apply parafilm to the containers.
6. Label the specimens as outlined below.

* Extreme precautions are necessary to prevent dissemination of smallpox virus during an autopsy. Standard precautions should be observed for all contact with the body. Contact with MDCH at 517-335-8063 during normal business hours or other times at 517-335-9030 should be made, prior to an autopsy, in order to review the containment features on individual autopsy suites, procedures for autopsy, and disinfection after an autopsy. To transport the body to the autopsy suite, the body should be wrapped in a large, impervious plastic bag, or a disaster pouch, that is sealed airtight with tape. The body should be sealed in a second large, impervious plastic

bag prior to transportation to the autopsy suite. Ideally, the autopsy would be performed in a room with negative air pressure with respect to the surrounding facilities. All doors and windows of the autopsy rooms should be closed during the autopsy, and the air exhausted must not be recirculated. Only necessary personnel with up-to-date vaccination (within 3 years) should participate in the autopsy. Vaccinated personnel should wear disposable clothing, gowns, gloves, caps, booties, and masks and face shields or protective eyewear to prevent splashing of the mucous membranes. No personal clothing should be worn. All clothing articles from the autopsy room should be placed in biohazard bags and autoclaved or incinerated. After autopsy, the body should be double bagged as described above, in another set of large, impervious plastic bags. If vaccination prior to autopsy is not possible, unvaccinated personnel, without vaccination contraindication, should perform the autopsy wearing, in addition to the protective garments above, respiratory protection such as HEPA-filtered breathing apparatus or a self-contained breathing apparatus.

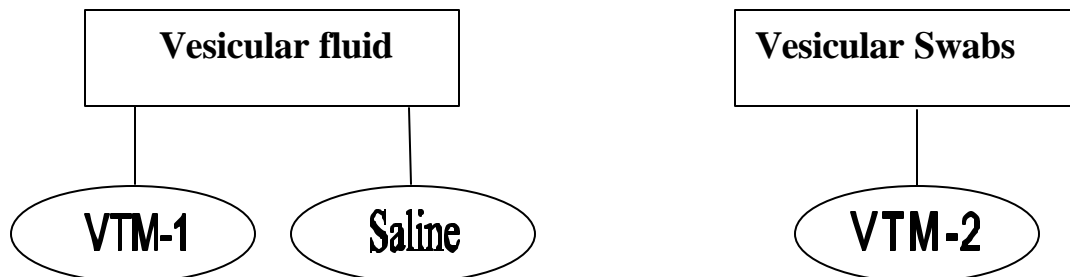
B. Environmental Specimens

In the event that environmental specimens need to be collected, contact MDCH at 517-335-8063 during normal business hours or at 517-335-9030 at other times for instructions on type of specimens to be collected and directions for the packaging and shipping of these specimens.

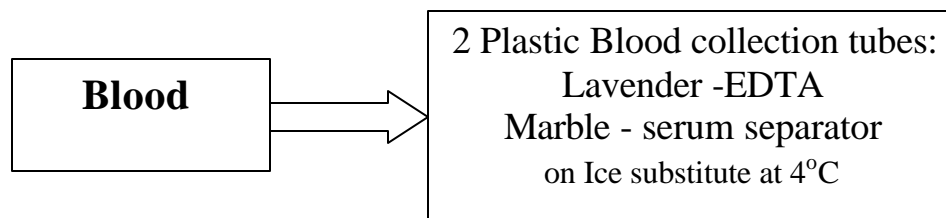
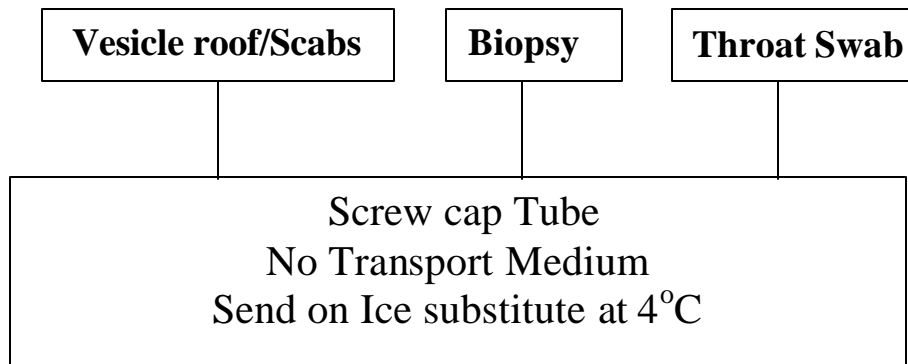
V. Specimen Labeling

- Label each specimen with patient name and identifying number, if available, using a water and bleach-proof marker.
- If multiple specimens are collected, indicate specific source of specimen (roof, scab, aspirate, lesion swab, biopsy, throat).

Specimen Collection for Potential Poxvirus and other Febrile Vesicular Rash Illnesses



Ship on Ice substitute at 4°C



NOTE:

- Put on protective equipment before collecting specimen.
- For detailed procedures for each specimen please refer to page No. 3 in the guidelines.
- Use one VTM for the vesicular fluid and the additional VTM for the vesicular swab.
- Do NOT spin or separate blood.

VI. Transport of Specimens

- These specimens require special handling. Please follow the packaging instructions described below to properly prepare the specimens for shipment. **Contact MDCH at 517-335-8063 during normal business hours (after hours call 517-335-9030) to make arrangements for emergency transportation of these specimens** or if any questions arise concerning safe transport of infectious substances.
- Each patient's specimens must be packaged separately from other patient specimens to avoid possible cross-contamination. Within 24 hours of collection, package and ship on ice substitute at 4 degrees C as described below.

A. Packaging of Infectious Substances

Regulations on the transportation of biological agents are aimed at ensuring that the public and the workers in the transportation chain are protected from exposure to any agent that might be in the package. Protection is achieved through (a) the requirements for rigorous packaging that will withstand rough handling and contain all liquid material within the package without leakage to the outside, (b) appropriate labeling of the package with the biohazard symbol and other labels to alert the workers in the transportation chain to the hazardous contents of the package, (c) documentation of the hazardous contents of the package should such information be necessary in an emergency situation, and (d) training of workers in the transportation chain to familiarize them with the hazardous contents so as to be able to respond to emergency situations.

Figure 1 illustrates the packaging and labeling of infectious substances in volumes of less than 50 ml. Figure 1 shows the generalized "triple" (primary receptacle, water tight secondary packaging, durable outer packaging) packaging required for a biological agent of human disease or materials that are known or suspected of containing them. This packaging requires the "Infectious Substance" label on the outside of the package. This packaging must be UN 6.2 certified to meet rigorous performance tests as outlined in the DOT, USPS, PHS, and IATA regulations. The shipping materials included in the MDCH Units meet all regulations for shipping etiologic agents. Specific instructions for packaging and shipping are included with the units. Contact MDCH if there are any questions concerning safe transport of specimens.

Figure 1. Packaging and Labeling of Infectious Substances



B. Specimen Shipping Regulations/References

Public Health Service 42 CFR Part 72. Interstate Transportation of Etiologic Agents. This regulation is in revision to harmonize it with the other U.S. and international regulations. A copy of the current regulations may be obtained at: <http://www.cdc.gov/od/ohs>

Department of Transportation 49 CFR Parts 171-178. Hazardous Materials Regulations. Applies to the shipment of both biological agents and clinical specimens. Information may be obtained at: <http://www.dot.gov.rules.html>

United State Postal Service. 39 CFR Part 111. Mailability of Etiologic Agents. Codified in the Domestic Mail Manual 124.38: Etiologic Agent Preparations. A copy of the Domestic Mail Manual may be obtained from the Government Printing Office by calling 1-202-512-1800 or at: <http://www.access.gpo.gov>

Occupational Health and Safety Administration (OSHA). 29 CFR Part 1910.1030. Occupational Exposure to Bloodborne Pathogens. Provides minimal packaging and labeling requirements for transport of blood and body fluids within the laboratory and outside of it. Information may be obtained from your local OSHA office or at: <http://osha.gov>

Dangerous Goods Regulations (DGR). International Air Transport Association (IATA). These regulations provide packaging and labeling requirements for infectious substances and materials, as well as clinical specimens. These are regulations followed by the airlines. A copy of the DGR may be obtained by calling 1-800-716-6326 or at: <http://www.iata.org> or <http://www.who.org>

VII. Decontamination Guidelines

Only vaccinated personnel or personnel without contraindication to vaccination should perform the following decontamination procedures. Protective clothing including gowns, gloves, shoe covers, caps, and masks must be worn. Although it was not considered a common mode of transmission during the smallpox era, infections with smallpox via contaminated bedding or fomites did occur rarely.

After use, all disposable protective clothing worn by decontamination personnel should be placed in biohazard bags and autoclaved or incinerated before disposal. However, if needed because of shortages of protective clothing, reusable protective clothing that can be laundered may be transported to the laundry in biohazard bags, then laundered as outlined below in VII. D.

Decontamination personnel should immediately shower with soap and water after the contaminated protective clothing is removed.

A. Reusable Medical Equipment

Reusable medical equipment should be cleaned with a 5% aqueous solution of a phenolic germicidal detergent then decontaminated using one of the following methods. The method selected should be based on manufacturer recommendations for decontamination of the equipment.

1. **Autoclave Decontamination:** Manufacturers standard protocols for autoclave decontamination may be used.

2. **Ethylene Oxide Decontamination:** Equipment that must be decontaminated using this method should be bagged in plastic bags that are permeable to gaseous ethylene oxide. Humidify the material to be sterilized by injecting water into the plastic-bagged material to produce a relative humidity of 50-70%. Place the bags into an ethylene oxide sterilizer and allow an exposure of at least 24 hours at a concentration of at least 800 mg/liter of ethylene oxide. The equipment should be allowed to fully aerate after decontamination.
3. **Solution Soak Decontamination:** soak equipment in a 5% aqueous solution of a phenolic germicidal detergent (industrial strength Lysol or Amphyl) for at least 1 hour.

B. Medical Waste

Medical waste must be placed in appropriately marked biohazard bags and incinerated or autoclaved onsite, or if onsite autoclaving and incineration is not possible, medical waste may be transported to an appropriate facility for autoclaving or incineration. If incineration takes place in an area other than the facility, the outside of the bags should be sprayed with a suitable disinfectant (e.g. Lysol or household bleach) prior to transportation to the area for incineration. All personnel involved in handling, transportation, and disposal of medical waste from facilities where confirmed or potential smallpox patients are housed must have recent smallpox vaccination (within 3 years) or have no contraindication to vaccination.

C. Surfaces

Contaminated horizontal surfaces may be decontaminated using a 5% aqueous solution of a phenolic germicidal detergent (e.g. industrial strength Lysol, Amphyl, or other commercial decontamination solution).

1. All surfaces should be thoroughly wet with the solution. Allow the solution to stand for at least 20 minutes then wet vacuum or wipe with clean cloths or disposable wipes. If a wet vacuum is not available or practical and mops are used, disposable mop heads should be used for no more than 500 square feet of floor area.
2. The cloths or disposable wipes, mop heads, wet vacuum cleaner contents, and protective clothing worn by the decontamination personnel should be bagged and incinerated or autoclaved.
3. If needed because of material shortages, re-usable protective clothing materials that can be laundered, may be bagged then laundered using hot water (71 degrees C) and bleach as outlined below. The wet vacuum cleaner should also be disinfected with a phenolic germicidal detergent after use to further disinfect the non-disposable parts of the vacuum cleaner (nozzle, hose, etc.).

D. Non-disposable Protective Clothing, Bedding, Linens, etc.

Contaminated protective clothing should be bagged immediately after removal and then incinerated or autoclaved. However, if needed because of shortages of protective clothing, reusable protective clothing that can be laundered may be bagged then laundered with hot water (71 degrees C) and bleach according to the standard proportions recommended by the bleach manufacturer. The non-disposable contaminated clothing should be wetted before sorting by laundry personnel as this should help prevent aerosolization of contaminated particles during sorting. Reusable materials should be laundered on site and all personnel handling laundry must be recently vaccinated (within 3 years) or without contraindication to vaccination. Bedding, linens, clothing, or other reusable cloth materials may be autoclaved or laundered as above.

E. Room/Facility

Facilities or rooms that were exposed to smallpox suspected material should be decontaminated. Once surface decontamination has been done, paraformaldehyde decontamination should be performed if possible. **The paraformaldehyde decontamination should only be performed by personnel experienced with this method of decontamination and after contact with the institution's safety officer and MDCH.** This procedure will be provided, if needed, by MDCH. An Amphyll fogger may also be used, following manufacturer's recommended procedures. All disposable items should be placed in biohazard bags and incinerated or autoclaved.

If the paraformaldehyde decontamination is impossible or impractical, at a minimum, the following decontamination should be performed:

- All disposable items that came into contact with the smallpox case should be bagged and incinerated or autoclaved. If incineration or autoclaving takes place in an area other than where the contamination occurred, the outside of the biohazard bag should be sprayed with a suitable disinfectant (e.g. Lysol or household bleach) prior to transportation to the area for incineration/autoclaving.
- Bedding, linens, clothing, curtains, or other cloth material that came into contact with the smallpox case should be transported in biohazard bags to be laundered using hot water and bleach as described above or incinerated/autoclaved.
- Surfaces, furniture, fixtures, and walls should be thoroughly cleaned with at 5% aqueous solution of a phenolic germicidal detergent.
- Carpets and upholstery should be cleaned using a 5% aqueous solution of a phenolic germicidal detergent.

F. Vehicles

Vehicles should be decontaminated after transporting a smallpox specimen **if there is a release/spill of the specimen during transport or after transporting a smallpox patient** before reuse of the vehicle. The vehicle should be decontaminated as follows.

If possible, decontamination using wet cleaning followed by paraformaldehyde or an Amphyll fogger as outlined in section E Room/Facility above should be performed. **The paraformaldehyde decontamination should only be performed by personnel experienced with this method of decontamination and after contact with the institution's safety officer and MDCH.** This procedure will be provided, if needed, by MDCH. An Amphyll fogger may also be used, following manufacturer's recommended procedures.

If either the paraformaldehyde or Amphyll fogger methods are not possible, wet decontamination and cleaning of the entire passenger compartment and all door handles should be done as outlined below:

1. All items that can be incinerated or autoclaved should be bagged and processed by one of these methods.
2. Heat-sensitive, reusable items should be sterilized using ethylene oxide as described above.
3. Larger items should be decontaminated at the same time as the vehicle.

4. Spray the entire interior of the vehicle heavily (until the solution runs off) with a 5% aqueous solution of a phenolic germicidal detergent. (Personnel performing this step should wear chemical respiratory protection and eye protection.
5. Allow the solution to stand on all surfaces for at least 20 minutes.
6. Wet vacuum or wet clean with clean cloths, disposable wipes, or mops with disposable mop heads, all surfaces inside the vehicle and all outside door handles.
7. Vacuum cleaner contents, cloths, or disposable wipes, mop heads, and protective clothing worn by the decontamination personnel should be bagged and incinerated or autoclaved, or laundered as outlined above.
8. The vacuum cleaner should be disinfected with a phenolic germicidal detergent after use.

The above procedures may not be possible for private vehicles used to transport smallpox specimens or patients. At a minimum, the following decontamination procedures should be performed:

1. All disposable items in the vehicle should be bagged and incinerated or autoclaved.
2. All surfaces in the vehicle should be thoroughly wiped down with a 5% aqueous solution of a phenolic germicidal detergent (e.g. Lysol, Amphyl or other commercial decontamination solution). The solution should be allowed to remain on the surfaces for at least 20 minutes before removing.
3. Carpets and upholstery should be cleaned using a 5% aqueous solution of a phenolic germicidal detergent. The solution should be allowed to remain on the carpets and upholstery for at least 20 minutes before being wiped off. Cloth upholstery should be allowed to completely dry before use.
4. All outside door handles should be thoroughly cleaned using a 5% aqueous solution of a phenolic germicidal detergent. The solution should be allowed to remain on the door handles for at least 20 minutes before being wiped off.
5. Cloth material used to wipe down the inside of the vehicles should be laundered using hot water and bleach (as described above) or bagged and incinerated.